

**WHAT IS CLAIMED IS:**

1. A head stack assembly for interfacing with a flexible medium of a disk, comprising:

a first head;

a second head located substantially adjacent to the first head wherein the flexible medium may be disposed between the first head and the second head;

the first head and the second head substantially parallel to each other and disposed at non-zero static roll angles  $\theta_a$  and  $\theta_b$ , respectively from the plane of the flexible medium.

2. The head stack assembly of claim 1 wherein the static roll angle  $\theta_a$  and the static roll angle  $\theta_b$  are from about 1 degree to about 2.5 degrees.

3. The head stack assembly of claim 1 wherein the static roll angle  $\theta_a$  and the static roll angle  $\theta_b$  are both about 2 degrees.

4. The head stack assembly of claim 1 wherein the static rolls angles of the first and second heads impart a curvature in the flexible medium.

5. The head stack assembly of claim 4 wherein the curvature in the medium reduces out-of-plane vibrations in the flexible medium in the region of the flexible medium proximate to the heads.

6. The head stack assembly of claim 1 wherein each head further comprises a sensor, the sensor of the first head located distal from the sensor of the second head.

7. The head stack assembly of claim 1 wherein each head has a top and a bottom and each head further comprises a first and second rail, the first and second rail extending the length of the bottom of each head.

8. A head stack assembly for interfacing with a flexible medium of a disk, wherein the flexible medium rotates approximately in a center plane, the head stack assembly comprising:

a first head gimbal assembly comprising:

- (i) a load beam;
- (ii) a flexure member coupled to the load beam, the flexure member having a non-zero static roll angle  $\theta_a$  from the plane of the flexible medium; and
- (iii) a head coupled to the flexure member; and

a second head gimbal assembly comprising:

- (i) a load beam;
- (ii) a flexure member coupled to the load beam, the flexure member having a non-zero static roll angle  $\theta_b$  from the plane of the flexible medium; and
- (iii) a head coupled to the flexure member.

9. The head stack assembly of claim 8 wherein the static roll angle  $\theta_a$  and the static roll angle  $\theta_b$  are from about 1 degree to about 2.5 degrees.

10. The head stack assembly of claim 8 wherein the static roll angle  $\theta_a$  and the static roll angle  $\theta_b$  are both about 2 degrees.

11. The head stack assembly of claim 8 wherein the first head gimbal assembly and the second head gimbal assembly induce a curvature to the flexible medium of a disk to enhance the communicative signal between the flexible medium and the head stack assembly.

12. The head stack assembly of claim 8 wherein each flexure member further comprises a dimple coupled to the load beam thereby allowing the flexure member to pivot with respect to the static roll angle.

13. The head stack assembly of claim 8 wherein each flexure member further comprises a force member.

14. The head stack assembly of claim 13 wherein each force member is a leaf spring.

15. The head stack assembly of claim 8 wherein each head further

comprises:

- a body having a top and a bottom opposite the top, and a first side and a second side opposite the first side;
- a first rail, extending longitudinally along the bottom of the head, proximate to the first side;
- a second rail, extending longitudinally along the bottom of the head, proximate to the second side;
- a sensor located at least partially in the first rail of the head.

16. A method of reducing out-of-plane vibration in a flexible medium in a region near a head stack assembly having a first and second head, comprising:

angling the first and second heads such that the first and second head remain substantially parallel but offset from the plane of the flexible medium by non-zero static roll angles of  $\theta_a$  and  $\theta_b$ , respectively, thereby

imparting a curvature in the flexible medium, and enhancing the communicative signal between the flexible medium and the head stack assembly.

17. The method of claim 16 wherein the static roll angles  $\theta_a$  and  $\theta_b$  are from about 1 degree to about 2.5 degrees.

18. The method of claim 16 wherein the static roll angles  $\theta_a$  and  $\theta_b$  are both about 2 degrees.